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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,123	02/28/2002	John Phillip Armington	100200389-1	2246

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**HEWLETT-PACKARD COMPANY**  
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EXAMINER

ABYANEH, ALI S

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/086,123	ARMINGTON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ali S. Abyaneh	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14, 17-20 and 22-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-14, 17-20 and 22-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/25/2005</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-14, 17-20 and 22-25 are pending.
2. Claims 1,13, 17 and 22 are amended.
3. Claims 15, 16, 21 and 26 are withdrawn by applicant.

### ***Response to Arguments***

4. Applicant's amendments/arguments filed on 08-17-2005 have been fully considered and therefore the claims are rejected under new grounds. The Examiner would like to point out that this action is made final (See MPEP 706.07a).

### **Information Disclosure Statement PTO-1449**

5. The Information Disclosure Statement submitted by applicant on 05-25-2005 has been considered.

### **Claim Rejections - 35 USC § 103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-14, 17-20 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over James M. Foley et al. (US Publication NO. 2002/0087894) in view of Gavin Walter Ehlers et al. (US Publication 2003/0172272).

### Regarding Claim 13

Foley teaches a method for authenticating a user, comprising the steps of: (a) receiving a claimed identity of a user (paragraph [0035]); (b) receiving a first authentication sample from said user via a first communication channel (paragraph [0035] and [0050]); (c) receiving a second authentication sample from said user (paragraph [0038]-[0039]) via a second communication channel ((paragraph [0050]) (authentication system may use one or more communication channel 502)); (d) verifying at least one of said first and second authentication samples based on a stored template uniquely associated with said claimed identity; and (e) verifying another of said authentication samples in a manner independent of said verifying in (d); and (f) granting access to said user based on said verifying in steps (d) and (e) (paragraph [0035]-[0039]). Foley does not explicitly teach **first authentication sample being previously securely provided to said user**. However, in an analogous art, Ehlers teaches receiving a first authentication sample from said user via a first communication channel, ((paragraph [0052]) (“once the user 12 receives the passcode by his or her mobile communication device 28, he or she offers it, via the IP network20”)), said first authentication sample being previously securely provided to said user (paragraph [0070]). Therefore it would have been obvious to one having ordinary skill in the art at

the time the invention was made to modify Folley's method to include the first authentication sample being previously securely provided to the user. This would have been obvious because person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to provide a strong and secure user authentication system and furthermore to authenticate the identity of a user wishing to access a facility (paragraph [0009]).

8. Claims 1, 2, 5, 6, 8, 9, 11,14, 17-19, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over James M. Foley et al. (US Publication NO. 2002/0087894) in view of Gavin Walter Ehlers et al. (US Publication 2003/0172272) further in view of Tadhg Kelly et al. (US Patent 6,678,826).

#### **Regarding Claim 1, 14 and 22**

Foley teaches a method/ computer-readable medium for authenticating a user, comprising the steps of: (a) receiving a claimed identity of a user (paragraph [0035]); (b) receiving a first authentication sample from said user via a first communication channel/ path (paragraph [0035] and [0050]); (c) establishing a second communication channel/ path with said user ((paragraph [0050]) (authentication system may use one or more communication channel 502)); (e) verifying at least one of said first and second authentication samples based on a stored template uniquely associated with said claimed identity; (e) verifying another of said authentication samples in a manner independent of said verifying in (d); and (g) granting access to said user based on said verifying in steps (e)

and (f) (paragraph [0035]-[0039]).Foley furthermore teaches authentication method may communicate the data to the user using different protocols (paragraph [0052] and [0053]). Foley does not explicitly teach **first authentication sample being previously securely provided to said user**. However, in an analogous art, Ehlers teaches receiving a first authentication sample from said user via a first communication channel/path, ((paragraph [0052]) (“once the user 12 receives the passcode by his or her mobile communication device 28, he or she offers it, via the IP network20”)), said first authentication sample being previously securely provided to said user (paragraph [0070]). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Folley’s method to include the first authentication sample being previously securely provided to the user. This would have been obvious because person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to provide a strong and secure user authentication system and furthermore to authenticate the identity of a user wishing to access a facility (paragraph [0009]). Foley and Ehlers do not explicitly teach **said second communication channel/path being out-of-band with respect to said first communication channel/path and (d) performing at least a portion of a challenge-response protocol, regarding a second authentication sample, with said user over said second communication channel/ path**. However, in an analogous art, Kelly discloses an out-of-band communication channel/ path (column 3, lines 45-48 and column

4, lines 55-59) and uses a challenge-response protocol (column 8, lines 51-53). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Folley's and Ehlers's method to include second communication channel/path being out-of-band and performing at least a portion of a challenge-response protocol, regarding a second authentication sample, with said user over said second communication channel/ path. This would have been obvious because person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to discriminate and permit limited access to some user and unlimited to others (column 5, lines 61-64).

#### **Regarding Claim 17**

Foley teaches a method for providing user authentication to control access to a protected application, comprising: (a) an interface, configured to receive a claimed identity of a user; (b) an interface, connected to a first communication path, configured to receive a first authentication datum associated with said user; (c) an interface, connected to a second communication path to said user (paragraph [0050])(“authentication system may use one or more communication channel 502”)); (e) means for verifying said first authentication datum based on a nominal identity of said user; and (f) means for verifying said second authentication datum independently of (e); and (g) means for granting access to said user after both authentication data are verified (paragraph [0035]-

[0039]).Foley furthermore teaches authentication method may communicate the data to the user using different types of communication (paragraph [0052] and [0053]) . Foley does not explicitly teach **first authentication datum being previously securely provided to said user**. However, in an analogous art, Ehlers teaches receiving a first authentication datum associated with said user ((paragraph [0052]) (“once the user 12 receives the passcode by his or her mobile communication device 28, he or she offers it, via the IP network20”)), said first authentication datum being previously securely provided to said user (paragraph [0070]). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Folley’s method to include the first authentication datum being previously securely provided to the user. This would have been obvious because person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to provide a strong and secure user authentication system and furthermore to authenticate the identity of a user wishing to access a facility (paragraph [0009]). Foley and Ehlers do not explicitly disclose **an interface, connected to a second communication path being out-of-band with respect to said first communication path; (d) means for performing, over said second communication path, at least a portion of a challenge-response communication regarding a second authentication datum associated with said user**. However, in an analogous art, Kelly discloses an out-of-band communication channel (column 3, lines 45-48 and column 4, lines 55-59) and



uses a challenge-response communication (column 8, lines 51-53). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Folley's and Ehlers's method to include second communication path being out-of-band and performing at least a portion of a challenge-response communication, regarding a second authentication datum. This would have been obvious because person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to discriminate and permit limited access to some user and unlimited to others (column 5, lines 61-64).

## **Regarding Claim 2**

Foley, Ehlers and Kelly teach all limitation of the claim as applied to claim 1 above and furthermore Foley teaches a method wherein said step (d) includes: (1) prompting said user via said second communication channel to provide at least one of said authentication samples; and (2) receiving said prompted authentication sample via said first communication channel ((paragraphs [0035]-[0039] and [0050]) ("authentication system may use one or more communication channel 502". Examiner considers using any other communication channel 502 as applicant's second communication channel)).

**Regarding Claims 5 and 9**

Foley, Ehlers and Kelly teach all limitation of the claim as applied to claim 1 above and furthermore Foley teaches a method comprising changing (updating) a template database based on at least one of said verified authentication samples and where at least one of said authentication samples is a dynamically changing attribute held by said user ((paragraph [0038]) ("user may select changes to the authenticating method"))).

**Regarding Claims 6, 8,19 and 24**

Foley, Ehlers and Kelly teach all limitation of the claim as applied to claim 1, 17 and 22 above and furthermore Foley teaches a method wherein said first communication channel/ path is telephonic and said second communication channel/ path is a computer network and at least one of authentication sample is a biometric attribute (paragraph [0026] and [0042]).

**Regarding Claim 11**

Foley, Ehlers and Kelly teach all limitation of the claim as applied to claim 1 above and furthermore Foley teaches a method, wherein said step (f) includes the steps of: generating a first string based on said another authentication sample; independently generating a second string based on said claimed identity; digitally comparing said first and second strings; and authenticating said another authentication sample if said strings match (paragraph [0033]-[0039]).

### **Regarding Claim 18**

Foley, Ehlers and Kelly teach all limitation of the claim as applied to claim 17 above and furthermore Foley teaches a method, where (d) further comprises means for prompting said user via said second communication path to provide said second authentication sample via said first communication path (paragraph [0035]-[0039]) and furthermore Foley discloses that authentication system may use more communication channel for exchange of data (paragraph [0050]).

### **Regarding Claim 23**

Foley, Ehlers and Kelly teach all limitation of the claim as applied to claim 22 above and furthermore Foley teaches a method, wherein at least one of said means for receiving includes: means for prompting said user via said first communication channel to provide at least one of said authentication samples; and means for receiving said prompted authentication sample via said second communication channel. ((Paragraphs [0035]-[0039] and [0050]) ("authentication system may use one or more communication channel 502". Examiner considers using any other communication channel 502 as applicant's second communication channel)).

9. Claims 3, 4, 7, 10, 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over James M. Foley et al. (US Publication NO. 2002/0087894) in view of

Gavin Walter Ehlers et al. (US Publication 2003/0172272) in view of Tadhg Kelly et al. (US Patent 6,678,826) and further in view of Larry P. Heck (US Patent 6,671,672).

**Regarding Claims 3, 4, 7, 10, 20 and 25**

Foley, Ehlers and Kelly teach all limitation of the claim as applied to claim 1, 17 and 22 above and furthermore Foley teaches a method of voice recognition (paragraph [0026]). Foley, Ehlers and Kelly do not explicitly disclose **converting said spoken authentication sample into textual form via the application of speech recognition techniques and said (e) includes authenticating a unique vocal characteristic of said user by applying a speaker verification protocol involving said claimed identity, said template, and said spoken authentication sample and determining a telephonic caller identification of said user**. However in analogous art, Heck discloses a method of converting spoken authentication sample into textual form (column 6, lines 23-28), said (e) includes authenticating a unique vocal characteristic of said user by applying a speaker verification protocol involving said claimed identity, said template, and said spoken authentication sample (column 6, lines 16-43) and determining a telephonic caller identification of said user (column 4, lines 59-62). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Folley's Ehlers's and Kelly's method to include converting spoken authentication sample into textual form, authenticating a unique vocal characteristic of said user by applying a speaker verification

protocol involving said claimed identity, said template, and said spoken authentication sample and determining a telephonic caller identification of said user. This would have been obvious because person having ordinary skill in the art at the time the invention was made would have been motivated to convert voice sample to text in order to compare the content of the output of the speech recognizer with the specified content, such as a stored password (column 4, lines 50-53) and verify the identity of the user (column 4, lines 59-62).

10. Claims 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over James M. Foley et al. (US Publication NO. 2002/0087894) in view of Gavin Walter Ehlers et al. (US Publication 2003/0172272) in view of Tadhg Kelly et al. (US Patent 6,678,826) and further in view of David L. Wood et al. (US Patent 6,668,322).

#### **Regarding Claim 12**

Foley, Ehlers and Kelly teach all limitation of the claim as applied to claim 1 above but they do not explicitly teach enabling a single sign-on process by sharing said authentication across multiple applications requiring authentication during a common session. However in analogous art, Wood discloses a method of single sign-on process (column 4, lines 60-67 and column 5, lines 1-9).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Folley's Ehlers's and Kelly's method to include single sign-on-process. This would have been obvious because person

having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to maintain continuity of a persistent session across multiple accesses to one or more information resources (column, lines 28-31).

### **References Cited, Not Used**

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

1. U.S. Publication No. 2003/0112972

This reference relate to a data carrier for the secure transmission of information.

2. U.S. Patent No. 6,070,243

This reference relates to regulating connectivity to and communicability within communication networks.

3. U.S. Patent No. 6,880,088

This reference relates to apparatus and methods for transmitting secure messages in a digital communications network.

### Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

  
**EMMANUEL L. MOISE**  
**SUPERVISORY PATENT EXAMINER**

Ali Abyaneh      **A.A**  
Patent Examiner  
Art Unit 2137  
11-26-05